## **ABSTRACT**

To provide a corona discharge ionizer that makes it possible to use a piezoelectric transformer by adding an effective ion balance function with a simple structure without applying particular changes to the structure, and that realizes noise reduction.

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In a corona discharge ionizer 10, a control electrode 6 is disposed in a cylindrical portion of an air supply pipe 2 which also functions as a shield body and at a location where ions are balanced. When a cylindrical inner diameter of the air supply pipe 2 is defined as Ds and an annular outer diameter of the control electrode 6 is defined as Dc, 2Dc<Ds is satisfied.